

SEGMENTING THE GENERAL PUBLIC TARGET AUDIENCE

The two primary objectives for the Segmentation Study conducted on behalf of the County of Los Angeles Department of Public Works in February 1997 were:

- Objective 1 Segment Los Angeles County residents for the purpose of directing limited County and Co-permittee resources toward those residents who pose the greatest threat to the County's stormwater quality and who represent the greatest opportunity to respond to a public education campaign.
- Objective 2 Provide a baseline measure of residents' current stormwater-related practices and habits.

It was hypothesized prior to conducting this segmentation study that all Los Angeles County residents are not equally responsible for stormwater pollution, or at least may differ in the type of pollution they are contributing. An analysis of the collected data supports this hypothesis that different groups of residents differ significantly in terms of (1) the amount of pollution they contribute, (2) their demographics and lifestyles, and (3) their attitudes related to stormwater pollution and the likelihood of changing their behaviors.

Methodology Overview

Total number of interviews:	1191 among Los Angeles County residents	
Timeframe of interviews:	February 8 - March 23, 1997	
General population sample:	<ul style="list-style-type: none">◆ Countywide random sampling◆ Selected by random digit phone numbers◆ With quotas pre-established for gender and age based on census data	
Participants were screened for these criteria:	<ul style="list-style-type: none">◆ 16 years or older◆ Must be a permanent resident of LA County and have lived here for more than six months◆ Not have participated in a telephone survey in the past two months	
Surveys were conducted in language of preference:	<ul style="list-style-type: none">◆ English◆ Spanish◆ Cantonese	<ul style="list-style-type: none">◆ Mandarin◆ Korean◆ Vietnamese

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Methodology Overview, cont.

Recent immigrant segments:

Spanish (sample = 101), Asian (sample = 101)

- ♦ Residents who moved to LA County from another country
- ♦ Have lived in the County for at least six months, but less than five years
- ♦ Speak Spanish, Cantonese, Mandarin, Korean or Vietnamese most often at home

How Segmentation Works

Segmentation is the result of a cluster analysis performed by a computer filtering and sorting the total population based on their survey answers by attitudinal and behavioral variables. The segments/groups are reflective of those residents who are most/least likely to change behavior and who have more or less damaging behavior by volume⁴. As you will see in the Summary of Conclusions, the Neat Neighbors, Fix It Foul-Ups and Rubbish Rebels are the three segments that will be the primary targets of the Five-Year Public Education Campaign.

Summary of Conclusions

Overall, Los Angeles County residents are interested in and concerned about local water quality. They are also willing to change many of the behaviors that contribute to stormwater pollution.

Unfortunately, even with their high overall level of concern, many residents are unknowingly engaging in practices that threaten stormwater quality. Additionally, although the County's indicators of concern and potential compliance are positive, not all residents are equally concerned about or willing to change their behaviors in order to improve stormwater quality. By segmenting the population, however, a clearer picture emerges of who should be targeted and how to reach them.

⁴ Estimated volumes of pollution created by pollution-causing behaviors were derived from the self-reporting activities recorded in the segmentation study. For example, if 1.09 million people self-reported dropping one cigarette butt per day on the ground this would equal an estimated volume of 32.8 million butts potentially traveling down the storm drain to the ocean.

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From the segmentation analysis, two groups⁵ of Los Angeles County residents emerge as most promising in terms of allocating public education resources:

"Neat Neighbors" (primary target) 50% of County's population	Because of their numbers in the population and because of their desire to 'do the right thing,' "Neat Neighbors" will likely heed the program's messages and even small, but widespread changes in these residents' habits will positively impact the County's stormwater quality.
"Fix It Foul-Ups" (primary target) 13% of County's population	"Fix It Foul-Ups" contribute disproportionately to stormwater pollution through their do-it-yourself activities. However, they have good intentions and are very receptive to modifying their pollution-causing behaviors. They can be effectively reached through do-it-yourself channels.

A third group also should be considered a primary target because of the amount of pollution they generate; however, a separate communications campaign must be developed and directed to this group. Because of their demographics, lifestyles and attitudes, they *will not* respond to the same type of campaign targeted to the Neat Neighbors and Fix It Foul-Ups.

"Rubbish Rebels" (primary target, separate campaign) 9% of the County's population	Rubbish Rebels are blatant and copious contributors to water pollution, and also should be considered a primary target. However, despite being more difficult to get to change their bad habits, ignoring this group would likely leave a major portion of stormwater pollution untreated.
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The fourth segment is not thought to warrant status as a primary target because these residents contribute only a modest amount to the overall volume of pollution; however, it is likely that a well-executed public education campaign targeting the Neat Neighbors will spill over and influence some of the Concerned Non-Contributors.

"Concerned Non-Contributors" (secondary target) 20% of the County's population	Although accounting for 20% of the population, they are not consistently engaging in behaviors that threaten stormwater quality. They are motivated and even willing to police others who they see polluting, but spending resources to target these non-contributors would likely yield a very poor return on
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⁵ A more detailed description of all six segmented audience groups can be found at the end of this section.

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investment in terms of improving stormwater quality.

Two other segments should not be considered as targets for current public education efforts:

"Prove-It-To-Me Polluters"
(non-target)
5% of the County's population

This group contributes only a modest amount of pollution to the overall volume and needs compelling reasons to change their pollution-causing behaviors. They are dissimilar to other County residents in the survey in that they have a higher level of education, more affluent lifestyles and may require more detailed information to change.

"Preoccupied Polluters"
(non-target)
3% of the County's population

Preoccupied Polluters also contribute very little to stormwater pollution, largely because of their relatively sparse numbers in the population. Additionally, they claim to be unwilling to change their pollution-causing behaviors. It appears that any effort spent trying to change these residents will result in very little overall effect on stormwater quality in the County.

Conclusions For a Communications Program

With respect to designing a communications program that will provide opportunity for maximizing reach and frequency of the message, it is recommended that an overarching theme be developed and that the program's components have a uniform look, tone and feel.

To effectively promote behavior change among the primary target audiences -- Neat Neighbors and Fix It Foul-Ups -- the campaign must tap into their desire to 'do the right thing' and provide them 'how to' information about alternative, anti-polluting behaviors. These residents also will be impacted by credible messages that imply that a change in their behavior will help protect children, keep their neighborhoods from smelling and preserve the environment for the future.




Rubbish Rebels also will need to be educated about alternatives to their polluting behaviors and will be motivated if they believe their actions will help protect children. They are not, however, strongly predisposed to listen to messages about water pollution and may be most effectively impacted if the messages directed toward them tie into and are delivered via media vehicles that relate to their lifestyles (e.g., beach and water sports). Because nearly one-quarter of the Rubbish Rebels speak Spanish at home, messages targeting this population segment should be adapted to Spanish-speaking residents.

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Overall, Spanish-speaking residents are more likely to engage in certain potentially polluting behaviors. This suggests a need to include Spanish-language materials and/or programs. For example, Spanish-speaking residents are avid car do-it-yourselfers (DIY) and are apparently not in the habit of recycling the used fluids for their cars. This suggests that materials and events targeting car DIY activities should be adapted for Spanish-speaking residents. These residents are also more likely than other residents to throw things directly into the storm drains. This suggests that any messages that focus on dumping directly into the storm drain should be adapted into Spanish as well.

Based on research, translating program materials into Asian languages is not recommended and would likely yield little overall benefit to the County in terms of improving stormwater quality. Non-English speaking Asian residents are relatively uninterested in water pollution issues and Asian immigrants of any length of residency are unlikely to engage in the kinds of activities that lead to stormwater pollution (e.g., do-it-yourself repairs, owning a dog, overwatering, dropping litter). This suggests that language adaptation in this group might not be as necessary as with the Spanish-speaking recent immigrants.

Total Population Reached Based on Segmentation Recommendations

Neat Neighbors	50%		72% of Los Angeles County residents receive messages using two different communications campaigns
Fix It Foul-Ups	13%		
Rubbish Rebels	<u>9%</u>		
	72%		
Concerned Non-Contributors	20%		8% considered non-targets due to low polluting behavior or low number (100% total)
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	20%		
Prove-It-To-Me Polluters	5%		8% considered non-targets due to low polluting behavior or low number (100% total)
Preoccupied Polluters	<u>3%</u>		
	8%		

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Conclusions About Recent Immigrants

Contrary to reports from the Spanish-speaking focus group participants, recent immigrants to the County from other countries do not represent a significant threat to stormwater quality. Immigrants who have lived in the County for less than five years are *less* likely than other residents to engage in many of the behaviors that cause or lead to stormwater pollution. Additionally, because of their small numbers in the population, they account for very little of the overall stormwater pollution.

As discussed on the previous page under “Conclusions For A Communications Campaign,” Asian immigrants of any length of residency are unlikely to engage in the kinds of activities that lead to stormwater pollution (e.g., do-it-yourself repairs, walking dogs, overwatering, dropping litter).

Comparison of Beach Dwellers to Inland Residents

As hypothesized, segmentation study research supports the belief that people who live at the beach are more concerned about pollution of the ocean, rivers and lakes than other County residents. There appears to be a faction of beach-dwellers who are “very interested” in learning about pollution of the ocean, rivers and lakes and who are more likely to be members of Heal the Bay (7%). They recall seeing or hearing storm drain messages more than other residents.

However, beach-dwellers are no more or less: (1) knowledgeable about water pollution, (2) likely to recycle, (3) likely to change their behavior, or, (4) likely to stop others from polluting. They are more motivated by messages about preventing pollution of the ocean, preserving the environment for the future and protecting their health, but, like inland residents, they are also motivated by messages that relate to protecting children. These behaviors and characteristics are very similar to the Neat Neighbors and Fix It Foul-Ups; therefore, a separate campaign is not needed to reach them. They will hear the messages directed at the Neat Neighbors and the Fix It Foul-Ups.

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Compared to the general population, beach dwellers are more affluent, have smaller households, are less likely to have children and tend to be Caucasian and English-speaking. They have smaller homes (condos and apartments) and they are less likely to be DIYers. They are less likely to engage in most pollution-causing behaviors and are also less likely to see people in their neighborhoods engaging in polluting behaviors. Beach-dwellers enjoy walking and jogging on the beach, boating, sailing, surfing and listening to the radio more than inland residents. And finally, slightly more Concerned Non-Contributors and Neat Neighbors live at the beach than other audience segments.

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Profiles of the Six Segmented Audiences

1. Neat Neighbors

Primary target

50% of County's population

Approximately 4.5 million adults

- ◆ Neat Neighbors, the first segmented audience, only occasionally takes part in pollution-causing behaviors but, because of the size of the segment, a little polluting adds up to significant amounts of pollutants in the stormwater.
- ◆ There are slightly more women than men in this segment. Half are married and most live with a spouse and 1 or 2 kids. Most own their own homes or rent single family dwellings.
- ◆ Neat Neighbors are employed and tend to work in professional jobs. They are 25 - 54 years old, with varying education levels and high average incomes. Most are Caucasian or Hispanic.
- ◆ They are not heavy car DIYers. They do wash their vehicles, accounting for 1/2 of all wash water from vehicles entering the storm drains. About 1/3 change the oil in their cars and only a small portion of the Neat Neighbors dispose of this oil improperly. Most derive a sense of accomplishment from working on home projects.
- ◆ Neat neighbors contribute 1/4 to 1/3 by volume of the following: water runoff from lawns (34%); hosing leaves and dirt in street/storm drains (37%); spraying pesticides (29%); using too much fertilizer (33%); washing paint off paint brushes into street/storm drains (39%).
- ◆ While only 6% drop litter on the ground, it accounts for 209,502 pieces of garbage on the streets each month (24% of all litter). They toss 45% of all cigarette butts onto the ground each month. More than 1/3 own a dog and 24% do not pick up their dog droppings.
- ◆ Neat Neighbors are very family-oriented, health-conscious and time-pressured. They enjoy going to the beach, primarily to walk or jog, and 1/2 enjoy water sports. Nearly 1 in 5 lives near the ocean.
- ◆ This group tends to be involved in their communities, attending church/temple, PTA meetings and neighborhood watch meetings; and take pride in their neighborhood more than the other segments.
- ◆ Neat Neighbors are the most environmentally conscious residents in the County. They are both concerned about and willing to make sacrifices for a better future for their children.
- ◆ They are avid recyclers.
- ◆ They feel they are fairly knowledgeable about water pollution and recall seeing water pollution messages on TV and in the newspaper. They are interested in learning more.

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1. Neat Neighbors

Primary target
50% of County's
population
Approximately 4.5
million adults

- ◆ They are one of the most likely groups to change their behavior and are likely to stop others from polluting as well.
- ◆ They are motivated by a wide variety of messages including: protecting children, improving their neighborhoods, protecting the environment and protecting their health.
- ◆ 6 out of 10 have cable TV and are more likely to watch documentaries, dramas, talk shows and children's shows than other residents. Most listen to radio.

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2. Fix It Foul-Ups

Primary target
13% of County's
population
Approximately 1.2
million adults

- ◆ Fix It Foul-Ups enjoy DIY activities around home and cars.
- ◆ They care about aesthetics of and take pride in their neighborhoods.
- ◆ Despite comprising only 13% of the population, this group disproportionately contributes to pollution: water flowing from lawns (22%); hosing leaves and dirt (25%); spraying pesticides (41%); too much fertilizer (25%); washing paint brushes outside (22%); allowing car wash water to run into gutter (16%); improperly disposing of used oil (24%); improperly disposing of radiator fluid (28%).
- ◆ While some of these residents are contributing to pollution, they also are involved in all forms of recycling.
- ◆ They consider themselves fairly knowledgeable about stormwater pollution and a slight majority recalls seeing storm drain messages.
- ◆ The challenge of this group is they are only moderately concerned about water pollution and litter and are only somewhat interested in learning more.
- ◆ They probably would change their behaviors but are not sure they would try to change anyone else's.
- ◆ They are more likely to respond to messages that encourage modifying or cutting down behaviors than eliminating them, and are motivated by protecting children, preserving the environment for the future or keeping their neighborhoods from smelling badly.
- ◆ They are predominately male, Caucasian, 35-65 years old. Married, but most do not have children at home.
- ◆ Most work full-time and have above-average incomes due in part to two-income households.
- ◆ Most are high school graduates or have some college education, but no college degree.
- ◆ Most own homes. They tend to be large with 3 or more bedrooms. Those that rent usually rent homes rather than apartments.
- ◆ They enjoy exercising at the beach and water sports.
- ◆ They have cable TV and watch news and sports more than other residents. They frequently listen to the radio, especially KFI and AM stations in general.
- ◆ They get information about water pollution from TV and newspapers.

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3. Rubbish Rebels

Primary target,
separate campaign

9% of County's
population

Approximately 0.8
million adults

- ◆ Although comprising only 9% of the population, Rubbish Rebels are heavy polluters. They are most likely to engage in almost every type of polluting behavior and do so apparently deliberately.
- ◆ They account for 41% by volume of all litter dropped on the ground each month; 68% of trash that blows out of their control; 42% of ashtrays that are dumped in the street; 62% of debris thrown directly into the storm drain. Half of the dog droppings in the streets come from these residents.
- ◆ They are predominately single males in their teens and twenties; from large families, most with households of four or more members.
- ◆ One-third of the Rubbish Rebels are unemployed. Most do not hold college degrees. This group skews Hispanic compared to the overall County population, and includes 25% who speak Spanish at home. Most rent instead of own their own homes.
- ◆ They are car enthusiasts and account for 28% of improperly disposed oil in the County.
- ◆ These residents spend less time in their yards, but still account for 25% of all water running into the gutter; 18% of leaves and dirt hosed; 22% over fertilizing; 7% of pesticides sprayed.
- ◆ They are more likely than other residents to wash their cars on or near grass or dirt.
- ◆ In addition to polluting, these residents engage in a wide variety of other antisocial behaviors: lying, speeding, running red lights/stop signs and calling in sick to work when they are not ill.
- ◆ They are not strongly concerned about pollution. They do not recycle as much as other residents, indicating an unwillingness to join in socially sanctioned, environmentally sound behaviors.
- ◆ They feel somewhat knowledgeable about water pollution, perhaps because they are involved in beach and water activities. They recall hearing water pollution messages on TV and are more likely to get their information from billboards and in school than other segments. They do not recall storm drain messages, per se. They are only somewhat interested in learning more about water pollution.
- ◆ They appear to have a soft spot in their hearts for messages about protecting children. They are more willing to tune-in messages about the ocean, rivers and lakes than other segments. They are less committed to trying to stop others from polluting.
- ◆ Rubbish Rebels appear to be disfranchised from their families and communities. They do not take pride in their neighborhoods and care little about what others think of them. They do not attend church and are not health-conscious.
- ◆ Slightly more than 1/2 subscribe to cable TV. They prefer sitcoms to the news, and also enjoy watching sports and talk shows. They frequently listen to the radio, FM more than AM.

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4. Concerned Non-Contributors

Secondary, spillover from Neat Neighbors/Fix Its campaign
20% of the County's population
Approximately 2 million adults

- ◆ Concerned Non-Contributors infrequently engage in pollution-causing activities.
 - ◆ By volume, they account for 4% - 15% of stormwater pollutants and do not stand out as major contributors to any one category of pollutants.
 - ◆ They are less likely than other groups to own a vehicle, dog or have a garden and they tend not to litter.
 - ◆ Most recycle aluminum, newspaper and plastic, but are not the most avid recyclers.
 - ◆ They are concerned about all types of pollution and take this cause seriously.
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- ◆ They worry most about effects of things on their health and longevity.
 - ◆ Concerned Non-Contributors would definitely change their behavior if they knew they were causing pollution and would probably try to prevent someone else from polluting. Unfortunately, they are less likely to see someone else polluting.
 - ◆ They feel they are somewhat knowledgeable about pollution, most recall seeing or hearing previous messages and are open to learning more.
 - ◆ They are not avid beach-goers nor water sport enthusiasts, although 1 in 5 lives near the ocean.
 - ◆ There are more women than men; oldest segment, 1 in 5 is over 65; 1 in 4 lives alone; most live with spouse, but no children.
 - ◆ Many are widowed; half are not in workforce due to retirement or housewives.
 - ◆ 1 in 10 has only grade-school education.
 - ◆ More rent a small apartment than own a house.

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5. Prove-It-To-Me Polluters

Non-target

5% of the County's population

Approximately 0.4 million people

- ◆ Prove-It-To-Me Polluters are not likely to engage in many pollution-causing behaviors.
 - ◆ They account for 5% - 9% by volume of various pollutants, with exception of pesticide use at 13%.
 - ◆ They derive a sense of accomplishment in home projects; but don't do them often. Are not car DIYs, other than car washing.
 - ◆ They are more concerned about crime and quality of County schools than water pollution and litter.
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- ◆ Prove-It-To-Me's consider themselves somewhat knowledgeable about pollution and recall seeing something about water pollution on TV. They are only somewhat interested in learning more.
 - ◆ A distinctive characteristic is a "wait and see" attitude about changing behaviors; they are only willing to change if given a good reason and are resistant to getting involved to stop others.
 - ◆ They regularly recycle aluminum, plastic and glass. Less vigilant about recycling newspapers, which they read more regularly than other groups.
 - ◆ They are well-educated and affluent. Own homes and work full-time in professional services.
 - ◆ There are an equal number of men and women, with more Asians in this segment than others (particularly Korean and Chinese).
 - ◆ More than half are young baby boomers (25-44) and are married with 1 or 2 children. Sometimes have extended family members or grown children living with them.
 - ◆ They attend church/temple more than other groups and enjoy spending time with family.
 - ◆ They enjoy beach activities, but are not likely to live at or near the beach.
 - ◆ They watch news more than any other group. Prefer easy listening FM radio and top 40. Less prone to listen to AM. Read the *LA Times* and 1 in 10 also reads the *Korean Times* or *Korean Central Valley*.

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6. Preoccupied Polluters

Non-target
3% of the County's
population
Approximately 0.2
million adults

- ◆ Preoccupied by basic survival needs.
 - ◆ Contribute to stormwater pollution without thinking about it.
 - ◆ Unlikely to change polluting behaviors.
 - ◆ Small population numbers, low contribution volume because this group doesn't engage in the kinds of activities that cause water pollution.
 - ◆ Most own a vehicle; few perform maintenance that adversely affects stormwater pollution.
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- ◆ Appear to be irresponsible; pollution contributions are largely from littering.
 - ◆ Only work in yard when absolutely necessary and don't enjoy it.
 - ◆ Claim to have plenty of time to sit and relax; but are somewhat financially stressed.
 - ◆ More concerned about unemployment than pollution.
 - ◆ Not knowledgeable about pollution and not interested in learning.
 - ◆ Less likely to have seen previous messages; only 1/3 recall any messages about storm drains.
 - ◆ Least willing to change behavior and not likely to stop anyone else from polluting.
 - ◆ Least likely to go to the beach or participate in water sports.
 - ◆ More men than women in this group; largely unmarried, but live with others in the household.
 - ◆ Wide age span, tend not to be college graduates and have below-average income.
 - ◆ Approximately 1/2 Caucasian and 1/2 African American.
 - ◆ 1/2 own homes, 1/2 rent.
 - ◆ Watch a variety of types of TV, a sizable number watch talk shows.
 - ◆ When they listen to radio, they listen to KKBT, KPWR, KJLH and AM-KLAC.